

REMARKS

Claims 2-5, 7, 11-15, 18, 21, 22, 23, and 29 have been cancelled without prejudice or disclaimer. Claims 1, 6, 8-10, 24, 26, and 28 have been amended and new claim 30 has been added. No new matter has been added. As a result, claims 1, 6, 8-10, 16-20, 24-28, and 30 are now pending in this application, with claims 1, 6 and 24 being independent.

Applicant thanks the Examiner for the courtesies extended during the telephone interview of November 23, 2009. Applicant submits that the present amendments and comments reflect the substance of that interview.

Rejection of the Claims Under 35 U.S.C. § 112, first paragraph

Claims 1, 6, 8-10, 16-20, and 24-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, claims 1, 6, and 24 are rejected based on the allegation that, "Applicant's disclosure fails to provide support for making the determination of whether the frame is destined for a network device of the first trunk group and furthermore forwarding the frame from the first network device to a network device of the first side to which the frame is destined if the frame is not destined for one of the network devices of the second trunk group." See Office Action, paragraph 4.

Applicant respectfully traverses this rejection. At least FIGS. 2 and 4 and associated description provide sufficient written description for the referenced elements of claims 1, 6, and 24. For example, FIG. 4 illustrates that if a frame received at a device 210 is destined for a member of a giga trunking group (e.g., group of devices 210, 211, 220, 221 of FIG. 2, and see operation 402 of FIG. 4), but with a destination device on a same side of the assembly (see operation 404 of FIG. 4), then the frame/packet is forwarded normally (as shown at operation 403).

In the specific example of FIG. 2, if the frame is received at device 210 and is destined for a member of the group (210/211/220/221) but not for a member on the other side (i.e., not for either device 220, 221), then the frame is destined for the device 211 on the same side of the assembly as the device 210. Then, the frame may be forwarded using the expansion port (exp tx) of the device 210. Applicant submits that FIG. 2 clearly illustrates the use of the expansion ports (exp tx of device 210 and exp rx of the device 211) to forward frames between the devices 210,

211. Further, at least paragraphs [0005-0007] and [0021] of Applicant's disclosure provide description related to forwarding packets in a "normal" or conventional fashion.

Consequently, Applicant respectfully requests that the above rejection be withdrawn.

Rejection of the Claims Under 35 U.S.C. § 112, first paragraph

Claims 1, 6, 8-10, 16-20, and 24-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Specifically, claims 1, 6, and 24 are rejected based on the allegation that these claims, "...recite receiving a frame at a first network device that is on a first side and a member of the first trunk group and determining whether the frame is destined for a network device of the first trunk group or a second network device of the second trunk group. This recitation is unclear and appears redundant since the frame has been received at a (first) network device of the first trunk group, hence the determination would always indicate that the frame is destined for a network device of the first trunk group." See Office Action, paragraph 6.

Applicant respectfully disagrees. As just described above, and again with reference to the example of FIGS. 2 and 4, a frame received at the device 210 on the first side may be destined for the device 211 that is also on the first side, or may be destined for a device 220 (or 221) on the second side. Thus, such a packet may be received at a first network device of the first side and may simultaneously (not redundantly) be destined for (another) device of the first side.

Consequently, Applicant respectfully requests that the above rejection be withdrawn.

Rejection of the Claims Under 35 U.S.C. § 101

Claims 1, 16, 17, 19, and 20 are rejected under 35 U.S.C. 101, based on the allegation that, "...the claimed invention is directed to non-statutory subject matter. These claims are directed toward a method of handling frames in a network device. However, for a method to be statutory it must be tied to another statutory class (such as a particular apparatus) or transform underlying subject matter (such as an article or materials) to a different state or thing. Since the claims do not appear to do either of these the method is non-statutory." See Office Action, paragraph 8.

Applicant respectfully disagrees, and submits that the above-referenced amendment(s) to claim 1 obviate this rejection. Specifically, claim 1 is tied to the claimed "particular" network

device, because claim 1 clearly recites “...receiving a frame at a first network device,” and “...determining, using the first network device...”

Consequently, Applicant respectfully requests that the above rejection be withdrawn.

Rejection of the Claims Under 35 U.S.C. § 102 – Kalkunte

Claim 1, 6, 8-10, 16-20, and 24-28 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2002/0027908 to Kalkunte et al. (hereinafter “Kalkunte”).

Claim 1, as amended, recites:

A method of handling frames, said method comprising:
receiving a frame at a first network device of an assembly of network devices divided into a first trunk group on a first side and a second trunk group on a second side, wherein the assembly includes a plurality of high-speed links connecting devices on the first side to corresponding devices on the second side, and wherein the first network device has a first high-speed port connected to a first high-speed link of the plurality of high-speed links and is on the first side and a member of the first trunk group;
determining, using the first network device, whether the frame is destined for a network device of the first trunk group or a second network device of the second trunk group;
if the frame is destined for the second network device, determining a path for forwarding the frame to the second side, the path being determined based on achieving a minimized forwarding latency for forwarding the frame to the second network device and including the first high-speed port of the first network device; and
if the frame is not destined for one of the network devices of the second trunk group, forwarding the frame from the first network device to a network device of the first side to which the frame is destined. (emphasis added).

In the Office Action, the entirety of claim 1 is rejected based on “paragraph 11, and Figure 1” of Kalkunte. See Office Action, paragraph 11. Applicant notes that former dependent claim 21 included a similar recitation as emphasized above, and was rejected on the same paragraph of Kalkunte. See Office Action, paragraph 17.

Paragraph 11 of Kalkunte is reproduced here for convenience:

The present invention is directed to a method of forwarding data in a network switch fabric. An incoming data packet is received at a first port of the fabric and a first packet portion, less than a full packet length, is read to determine particular packet information, the particular packet information including a source address and a destination address. An egress port bitmap is determined based on a lookup in a forwarding table and it is determined if the destination address belongs to a trunk group of trunked ports. The incoming data packet is forwarded based on the egress port bitmap, when the destination address does not belong to the trunk group. **When the destination address does belong to the trunk group, a particular trunked port of the trunk group is determined and the incoming data packet is forwarded thereto. More specifically, the particular trunked port of the trunk group may be determined by calculating a hash value based on the source address and the destination value and selecting the particular trunked port based on the hash value.** Additionally, a class of service for the incoming data packet is also determined from the particular packet information and a priority for forwarding is set based on the class of service.

As may be observed from the above reproduction of paragraph 11 of Kalkunte, Kalkunte discloses determining a port based on a hash value. The Office Action does not describe or identify any portion of Kalkunte which discloses "...determining a path for forwarding the frame to the second side, the path being determined based on achieving a minimized forwarding latency for forwarding the frame to the second network device and including the first high-speed port of the first network device," as recited in claim 1. Applicant notes that this recitation includes determining the path based on both the minimized forwarding latency and including the first high speed port of the first network device, as claimed. Applicant submits that Kalkunte does not disclose or render obvious this combination of features.

Consequently, Applicant submits that claim 1 is allowable for at least these reasons, so that dependent claims 16, 17, 19, 20, and 30 are believed allowable for at least the same reasons. Independent claims 6 and 24 recite the same or similar features, and are thus believed allowable for the same or similar reasons, along with their respective dependent claims.

31. Moreover, the various dependent claims may be allowable for additional or alternative reasons. For example, claim 28, which depends from claim 24, recites, that the "...network device does not rely on a hash result to determine the path." In contrast, Kalkunte, as just described, does rely on a hash value to determine a particular trunked port of a trunk group. Moreover, claim 30, which depends from claim 1, recites, "wherein if the frame is destined for the second network device, the forwarding comprises: determining the path relative to an alternate path, the alternate path based on a hash algorithm used to select a high-speed link of the plurality of links." As shown in FIG. 2 and described at paragraphs [0023-0024] of Applicant's description, such an alternate path (e.g., the path A of FIG. 2) may experience longer latency than the path recited in claim 1 (e.g., the path B of FIG. 2).

Therefore, dependent claims 28 and 30 are believed allowable for at least these additional reasons.

Conclusion

Applicant respectfully submits that all claims are in condition for allowance and requests a Notice of Allowance to this effect.

Please charge any additional fees or credit overpayment to Deposit Account No. 50-3521.

Respectfully submitted,
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